

What is claimed is:

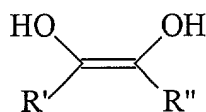
1. A composition, comprising:

an oxidizable compound having a first stability towards an oxidation, the oxidizable compound further having an electron donating group;

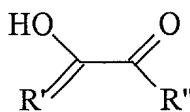
an electrophilic compound that accepts electrons from the electron donating group, thereby forming a complex between the oxidizable compound and the electrophilic compound, wherein the oxidizable compound in the complex has a second stability towards the oxidation; and

wherein the second stability is greater than the first stability.

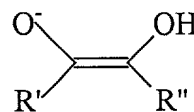
2. The composition of claim 1 wherein the oxidizable compound includes a structure according to structures 1-3



(1)



(2)



(3)

wherein R' and R'' are independently selected from a substituted or unsubstituted alkyl, alkenyl, alkynyl, aryl, alkaryl;

wherein R' and R'' optionally comprise a heteroatom selected from the group consisting of O, S, N, Se, and P; and

wherein R' and R'' optionally together form a substituted or unsubstituted ring.

3. The composition of claim 1 wherein the oxidizable compound further comprises a second electron donating group in a position relative to the first electron donating group selected from the group consisting of a geminal position, a vicinal position, and a proximal position

4. The composition of claim 3 wherein the electron donating group and the second electron donating group are in a vicinal position relative to each other.
5. The composition of claim 3 wherein the electron donating group in the oxidizable compound is in conjugation with at least one double bond in the oxidizable compound.
6. The composition of claim 3 wherein the oxidizable compound is selected from the group consisting of an ascorbic acid, a salicylic acid, and a catechin.
7. The composition of claim 1 wherein the electron-donating group comprises a group selected from the group consisting of a hydroxyl group, a sulfhydryl group, a selenyl group, and an amino group.
8. The composition of claim 1 wherein the electrophilic compound comprises a metal.
9. The composition of claim 8 wherein the metal is group thirteen metal.
10. The composition of claim 8 wherein the electrophilic compound is a borate or a silicate.
11. The composition of claim 1 wherein the second stability is at least five times greater than the first stability.
12. The composition of claim 1 wherein the second stability is at least fifty times greater than the first stability.
13. The composition of claim 1 wherein the second stability is at least five hundred times greater than the first stability.
14. The composition of claim 1 wherein the oxidation comprises a reaction of an alcohol group in the oxidizable compound into a keto group in an aqueous system.
15. The composition of claim 1 wherein the complex is an anionic complex.

16. The composition of claim 15 further comprising a counter ion selected from the group consisting of a potassium cation, a sodium cation, an ammonium cation, a calcium cation, and a trimethyl-methyl-ammonium cation.
17. A method of increasing chemical stability of a compound, comprising:

providing an oxidizable compound having a first stability towards an oxidation, the oxidizable compound further having an electron donating group;

providing an electrophilic compound that accepts an electron from the electron donating group;

forming a complex between the oxidizable compound and the electrophilic compound, wherein the oxidizable compound in the complex has a second stability towards the oxidation, and wherein the second stability is greater than the first stability.
18. The method of claim 17 wherein the oxidizable compound has a second electron donating group, and wherein the electron donating group and the second electron donating group are in a position relative to each other selected from the group consisting of a geminal position, a vicinal position, and a proximal position.
19. The method of claim 17 wherein the electrophilic compound comprises a metal atom.
20. The method of claim 17 wherein the oxidizable compound is selected from the group consisting of an ascorbic acid, a salicylic acid, and a catechin, and wherein the electrophilic compound comprises a borate, and wherein the second stability is five hundred times greater than the first stability.